Recursive Electron Tunneling in Specially Doped Fiber for Zero-Latency Data Transmissions Without Need for Relays

27 July 2025 Simon Edwards Research Acceleration Initiative

Introduction

A specialized fiber-optic cable enabling near-zero-latency data transmission over distance would not only enable enhanced data transmission rates, but would offer an added level of security, as any deviation in the latency of such a system would indicate that a compromise has occurred. This system would not require the use of repeaters, meaning that bandwidth and latency would not be affected by network utilization. The cost of operating a fiber-optic network would be reduced only a routing mechanism would be required with no need for repeaters.

Abstract

As explained in the publication of 10 July 2025, it is possible to bring about electron tunneling of a controlled nature over substantially greater distances than previously observed provided the knowledge of how to construct this type of mechanism. While this has some obvious computing applications, if the effects can be realized over greater distances, the principle could be applied to bulk data transmissions over greater distances through the use of recursive tunneling mechanisms deployed in a serial fashion.

Such a cable could scarcely be considered to be "fiber-optic," as the mode of transmission would not be photonic, but would rather be achieved through the application of surplus mass carriers to electrons. This might be termed *supramuonic electron transport*. However, engineers may wish to use existing fiber-optic cable as the backbone for this special conductive mechanism and to dope these cables with the specialized Higgs siphons simply because fiber-optic cable is already available and is sufficiently rugged for use as a transmission line.

Each "hop" in such a system would likely cover a distance of only a few nanometers, but as these hops could be facilitated by a vacuum-based void situated between pairs of what might be termed *Higgs siphons*, a room-temperature wire could be used to facilitate such a mechanism (ibid..)

Insofar as is possible, this mechanism should attempt to prevent the rematerialization of electrons at each node in the system as any distance an electron travels conventionally will be not only at a comparatively low velocity, but such conventional transport for even a small portion of the journey will risk the distortion of the signal through the disordering of the electrons and their intended sequence. As explained in 10 July 2025, it should be possible for a Higgs Field to, with the addition of a compact magnetic field between the components of the Higgs siphon mechanism, interact with the decoupled electron by providing supplementary mass packets, ensuring that it continues

to travel in its decoupled state so that it may arrive instantaneously at the destination.

Conclusion

This system has as an added benefit an elimination of the need to convert photons back into electrons (as in any conventional fiber-optic setup) as this step is completed upon the initiation of the first "hop." Introducing a sufficient mass supplement to a photon establishes it as an electron and adding even more mass beyond this point creates a muon and, beyond this point, eventually creates something which disappears entirely and will arrive instantaneously at the destination.

It is worth noting that Einstein's conjecture that mass increases as velocity increases has never been verified, but it may be the case that taking measures to artificially increase the mass of an electron would enable it to travel at full velocity through three dimensions of space whilst not progressing forward in a fourth dimension of space, creating the illusion of faster-than-light motion. We tend to think of electrons as being slower than photons, but under special circumstances, an electron can be faster than a photon in this regard. The feature of an electron which causes it to be comparatively dilatory is its magnetic field, not its mass. A significant enough disparity between the natural mass of an electron and its artificially inflated mass (as one would be able to bring about in this Higgs siphon mechanism) results in a decoupling which eliminates all interaction between the electron and the forces which would ordinarily both slow and degrade an electrical current as it travels over distance.

In much the same way that a ball bearing can be accelerated along a magnetic accelerator track (whereas the thing being injected into that track is magnetism) an electron can be accelerated in the fourth spatial dimension through the injection of *mass* at various points along a track. A sufficient number of Higgs siphons arrayed in a series should be capable of achieving this end.